

Bangor and Aroostook Railroad Co.)	Departmental
Piscataquis County)	Findings of Fact and Order
Milo, Maine)	Air Emission License
A-27-71-J-M)	Amendment #1

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. The Bangor and Aroostook Railroad Co. of Milo, Maine was issued Air Emission License A-27-71-I-R on April 10, 2002, permitting the operation of emission sources associated with their locomotive/railcar maintenance facility in Milo, Maine.
2. The Bangor and Aroostook Railroad Co. has requested an amendment of their air emissions license to reflect the conversion of their boiler units (Boilers #1 and #2) **from** firing #6 fuel oil with a sulfur content not to exceed 2.0% sulfur by weight **to** #2 fuel oil with a sulfur content not to exceed 0.5% sulfur by weight.

B. Emission Equipment

The Bangor and Aroostook Railroad Co. is applying to amend their license to reflect operational changes affecting the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler #1	19.5	139	Specification waste oil, 0.7% Or #2 fuel oil, 0.5%	1
Boiler #2	19.5	139	Specification waste oil, 0.7% Or #2 fuel oil, 0.5%	1

C. Application Classification

A modification at a facility with a licensed emissions increase of under (4) four TPY for any one regulated pollutant and under (8) eight TPY for total pollutants is determined to be a minor revision and not a major or minor modification. This amendment is determined to be a minor revision and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Bureau of Air Quality regulations. BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Air Regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boilers #1 and #2

The Bangor and Aroostook Railroad Co. operates Boilers #1 and #2 primarily for facility heat and hot water. The current air emission license (A-27-71-I-R) allows the boilers to fire #6 fuel oil with a sulfur content no greater than 2.0% sulfur by weight, at a rate of 130.0 gallons per hour. The Bangor and Aroostook Railroad Co. may also fire waste oil in the boilers as long as the waste oil is “specification” waste oil (as defined in the Waste Oil Management Rules) with a sulfur content no greater than 0.7% sulfur by weight. The boilers have been converted to fire #2 fuel oil at a rate of 139.3 gallons per hour.

The Bangor and Aroostook Railroad Co. has converted the boilers to fire #2 fuel oil. The conversion included the decommissioning of all the #6 fuel oil delivery system and burner systems for each boiler and the installation of new #2 fuel oil burner systems. The maximum design fuel flow rate for the new #2 fuel oil burner systems was unavailable, however calculating from the boilers’ maximum design heat input firing #6 fuel oil of 19.5 MMBtu/hr each, the maximum fuel firing rate of the new burners is calculated to be 139.0 gallons per hour.

The Bangor and Aroostook Railroad Co. has proposed an increase in their total annual fuel use limit **from** 175,000 gallons per year **to** 200,000 gallons per year to account for the lower heat content of the new fuel.

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BPT shall require that Bangor and Aroostook Railroad Co. fire #2 fuel oil with a sulfur content no greater than 0.5% sulfur in Boilers #1 and #2. However, SO₂ emissions limits were calculated using the sulfur content of “specification” waste oil which is 0.7% sulfur by weight.

A summary of the BPT emissions limits for Boilers #1 and #2 is as follows:

1. The PM/PM₁₀ limits are derived from Chapter 103
2. BPT for sulfur content for #2 fuel oil fired in the boiler is 0.5% sulfur by weight.
3. SO₂, CO and VOC emission limits are based upon AP-42 data dated 10/96.
4. NO_x emissions limits are based on manufacturer supplied data.
5. Visible emissions from each boiler stack shall not exceed 30% opacity on a (6) six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

C. Annual Emission Restrictions

The Bangor and Aroostook Railroad Co. will be assessed fees based on the following annual emissions, based on a 12 month rolling total:

Total Allowable Annual Emission for the Facility

<u>Pollutant</u>	<u>Tons/Year</u>
PM	3.0
PM ₁₀	3.0
SO ₂	11.0
NO _x	7.5
CO	0.5
VOC	39.9
HAPs*	24.9
Individual HAPs*	9.9

- * HAPs are identified by the EPA in regulations pursuant to Section 112(b) of the Clean Air Act (CAA).

III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a non major source shall be determined on a case-by case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source. An air quality analysis is not required for this amendment.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-27-71-J-M subject to the conditions found in Air Emission License A-27-71-I-R and in the following conditions:

The following shall replace Condition (16) of Air Emission License A-27-71-J-M:

- (1) Boilers #1 and #2
 - A. Total facility fuel use shall be limited to a total combined use of 200,000 gallons per year of specification waste oil with a sulfur content of 0.7% by weight and #2 oil with a sulfur content of 0.5% sulfur by weight based on a twelve month rolling total. Only waste oil meeting the criteria “specification” waste oil (as defined in the “Waste Oil Management Rules”) shall be burned in Boiler #1 and #2.
 - B. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total.
 - C. A log shall be maintained recording the quantities of specification waste oil burned in Boilers #1 and #2 and shall be made available to the Department upon request.

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D. Emissions shall not exceed the following:

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boiler #1	lb/MMBtu	0.2	n/a	n/a	n/a	n/a	n/a
	lb/hr	3.9	3.9	15.3	9.8	0.7	0.1
Boiler #2	lb/MMBtu	0.2	n/a	n/a	n/a	n/a	n/a
	lb/hr	3.9	3.9	15.3	9.8	0.7	0.1

E. Visible emissions.

Visible emissions from the boiler stack shall not exceed 30% opacity on a six-(6) minute block average except, for no more than 2 six minute block averages in a 3 hour period.

The following is a new condition:

(25) This amendment shall expire concurrently with Air Emission License A-27-71-I-R.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2002.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
MARTHA G. KIRKPATRICK, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: **November 18, 2002**

Date of application acceptance: **November 18, 2002**

Date filed with the Board of Environmental Protection: _____

This Order prepared by, Peter G. Carleton, Bureau of Air Quality